

REMARKS

This Amendment is responsive to the Office Action identified above, and is further responsive in any manner indicated below.

PENDING CLAIMS

Claims 1-34 were pending, under consideration and subject to examination in the Office Action. Appropriate ones of the claims have been amended in order to adjust a clarity and/or focus of Applicant's claimed invention, or merely for idiomatic English and readability. That is, such changes are unrelated to any prior art, scope adjustment or rejection, and are simply refocused claims in which Applicant is presently interested. At entry of this paper, Claims 1-34 remain pending for further consideration and examination in this application.

REJECTION UNDER 35 USC §103 - TRAVERSED

Claims 1-34 were rejected under 35 USC §103 as being unpatentable over Takagi *et al.* (JP 07-201946). Such rejection has been rendered obsolete by the present clarifying amendments to Applicant's claims, and accordingly, traversal arguments are not appropriate at this time. However, Applicant respectfully submits the following to preclude renewal of any such rejections against Applicant's clarified claims.

All descriptions of Applicant's disclosed and claimed invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated herein by reference. Further, all Office Action statements regarding the prior art rejections are

respectfully traversed. As additional arguments, Applicant respectfully submits the following.

In rejecting claims under 35 USC §103, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *See In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). To reach a conclusion of obviousness under §103, the Examiner must produce a factual basis supported by teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration. Such evidence is required to establish *prima facie* obviousness. *In re Piasecki*, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). What a reference teaches is a question of fact. *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994) (*citing In re Beattle*, 974 F.2d 1309, 1311, 24 USPQ2d 1040, 1041 (Fed. Cir. 1992). (*In re Baird* addresses the substitution of a claim limitation by an element that is alleged to be the same or to operate the same; “the requirements of the claim cannot be ignored or substituted.”)

Accordingly, In order to properly support a §103 obviousness-type rejection, the reference not only must suggest the claimed features, but also must contain the motivation for modifying the art to arrive at an approximation of the claimed features. However, the cited art does not adequately support a §103 obviousness-type rejection because it does not, at minimum, disclose (or suggest) the following limitations of Applicant's clarified claims.

Applicant's disclosed and claimed invention is directed to arrangements (e.g., apparatus, systems, methods) allowing inspection (e.g., microscopic inspection) of articles such as semiconductor recticles, wafers, etc. As part of the invention, Applicant's invention includes a display screen (e.g., Applicant's FIG. 1)

simultaneously displaying on a same screen both a sorting display screen area 151 in which to display ones of images with unclassified semiconductor manufacturing defects, and a plurality of defect-classification display screen areas 152-155 into which each image of the images may be classified and displayed according to visual manufacturing defect features contained in the image. In practice, a human inspector may use a user-manipulated moving unit (e.g., a computer mouse) to move an image from said sorting display screen area to selected ones of said defect-classification display screen areas, to classify and display said subject image in the selected ones of the defect-classification display screen areas.

Office Action comments (page 3 of the Detailed Action portion) state, "Claimed invention does not recite **simultaneous** display of unclassified and classified defect images on the same display screen." Traversal is appropriate, because "simultaneously" was explicitly contained within ones of Applicant's prior pending claims. For example, independent claim 27 recited "a display screen unit to arrange a sorting display screen area on a display screen, in which plural ones of said images with unclassified semiconductor manufacturing defects are displayable, and to simultaneously arrange a plurality of defect-classification display screen areas into which each image of said images may be classified according to visual manufacturing defect features contained in the image on the same display screen." As a result of the foregoing, it is respectfully submitted that such "simultaneous" claim(s)/feature should have been considered. The "simultaneous" feature has been explicitly placed into all other ones of Applicant's independent claims, i.e., see "wherein" clause.

Regarding the “simultaneous” feature, and rebuttal of the applied Takagi reference, Takagi is deficient as a 103 reference in that Takagi never disclosed or suggested a display screen simultaneously displaying on a same screen both a sorting display screen area in which to display ones of images with unclassified semiconductor manufacturing defects, and a plurality of defect-classification display screen areas into which each image of the images may be classified and displayed according to visual manufacturing defect features contained in the image. More particularly, Takagi’s cited Drawings 6-7 and Paragraphs 0047-0048 do NOT display unclassified/classified defects or areas simultaneously on a same screen. There is very little disclosure with respect to Takagi’s Drawings 6-7, and it is respectfully submitted that any Drawing 6-7’s disclosure provided within Takagi’s English language translation suffers from very poor readability.

At least three aspects of Applicant’s application make it clear that Applicant’s display screen arrangement simultaneously displays on a same screen both a sorting display screen area in which to display ones of images with unclassified semiconductor manufacturing defects, and a plurality of defect-classification display screen areas into which each image of the images may be classified and displayed. More particularly, Applicant’s original specification makes such feature clear. Second, Applicant’s claim language such as (example independent claim 1) “a display screen unit to arrange a first display screen area on a display screen, to display ones of said plurality of images stored in said storage unit that have not been classified, and to arrange a plurality of second display screen areas for classifying said images according to visual features of said images on the same display screen; and a moving unit to allow user-manual-movement of each image of said plurality of

images on said display screen from said first display screen area to selected second display screen areas to classify and display said images in said second display screen areas.". Finally, claims 23, 26, 30 and 34 are directed to situations where already classified defects are moved from one display screen area to another; based upon the doctrine of claim differentiation, independent claims from which these claims depend do not contain such features/limitations, and thus such independent claims are distinguished from Takagi's cited Drawings 6-7 and Paragraphs 0047-0048 which display already classified defect images on Takagi's same screen.

In addition to the foregoing, the following additional remarks from Applicant's foreign representative are also submitted in support of traversal of the rejection and patentability of Applicant's claims.

In the present invention, a display screen unit has two types of display screen areas on the same display screen, where one is a first display screen area for displaying plurality of images stored in a storage unit that have not been classified and another is a plurality of second display screen areas for classifying and displaying defect images according to visual features of images.

As unclassified images in the first display screen area and classified images within ones of defect image-classification are simultaneously displayed on the same display screen. Thus, an operator can have a correct understanding of all defect images by comparing unclassified images in said first display screen area and classified images within ones of defect image-classification second display screen areas, and can move the unclassified defect images to the optimal classification area in the second display screen areas easily and quickly by a drag and drop

operation using a mouse. (see page 7, line 17, through page 8, line 8, Figs. 1 and 6.)

By using the inspecting system of the present invention, it is possible to shorten the analysis time for classifying the defects detected in the production line and to enhance the accuracy for analyzing the defects.

On the other hand, Takagi (JP 07-20 1946) discloses an inspecting system including a display screen means having a display screen for displaying a sorting display screen area (symbol of 311 in Figs. 6) in which plural ones of said images with unclassified manufacturing defects are displayable, and displaying a plurality of defect-classification display screen areas (Fig.7) into which each image of said images may be classified and displayed according to visual defect features.

However, Takagi does not disclose the display screen unit having two types of display screen areas, displaying unclassified defect images and classified defect images, on the same display screen and also being able to display unclassified and classified defect images simultaneously on the same display screen. Therefore Takagi can not only compare the unclassified defect images and the classified defect images visually on the same display screen but also fails to have a correct understanding of all defect images as to classify the detected defects easily and quickly. Accordingly, Applicant is sure that the present invention has a novelty and is different from that of Takagi.

As a result of all of the foregoing, it is respectfully submitted that the applied art would not support a §103 obviousness-type rejection of Applicant's claims. Accordingly, Applicant respectfully submits that such §103 rejection be withdrawn, and express written allowance of all pending claims is respectfully requested.

EXTENSIVE PROSECUTION NOTED

Applicant and the undersigned respectfully note the extensive prosecution which has been conducted to date with the present application, and thus Applicant and the undersigned would gratefully appreciate any considerations or guidance from the Examiner to help move the present application quickly to allowance.

RESERVATION OF RIGHTS

It is respectfully submitted that all claim amendments and/or cancellations submitted within this paper and throughout prosecution of the present application are without prejudice or disclaimer. That is, any present amendment or cancellation of claims (all made without prejudice or disclaimer) should not be taken as an indication or admission that any objection/rejection was valid, or as a disclaimer of any scope or subject matter. Applicant respectfully reserves all rights to file subsequent related application(s) (including reissue applications) directed to any/all previously claimed limitations/features which have been subsequently amended or cancelled, or to any/all limitations/features not yet claimed, *i.e.*, Applicant continues (indefinitely) to maintain no intention or desire to dedicate or surrender any limitations/features of subject matter of the present application to the public.

EXAMINER INVITED TO CALL

The Examiner is invited to telephone the undersigned at the local D.C. area number of 703-312-6600, to discuss an Examiner's Amendment or other suggested action for accelerating prosecution and moving the present application to allowance.

CONCLUSION

Applicant respectfully submits that the present application is now in condition for allowance, and an early Notice of Allowance to that effect is respectfully requested.

This Amendment is being filed within the shortened statutory period for response set by the Office Action mailed 24 September 2004 (24 December 2004 being a legal holiday in D.C., 25 December being a Saturday and 26 December being a Sunday), and therefore, no extension of time is required for entry of this paper. To whatever other extent is actually appropriate and necessary, Applicant petitions for an extension of time under §1.136. Further, no additional fees are required for entry of this paper. Please charge any actual and appropriate fee deficiency to ATS&K Deposit Account No. 01-2135 (as No. 501.37892X00).

Respectfully submitted,



Paul J. Skwierawski
Registration No. 32,173
ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 North Seventeenth Street, Suite 1800
Arlington, Virginia 22209-3873, USA
Telephone 703-312-6600
Facsimile 703-312-6666